U.S. Application No. 10/530,801
Attorney Docket No. 3340.16-US-01

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PROPOSED AMENDED CLAIMS

1-9. (Cancelled).

10. (Currently Amended) A device for connecting previously intubed ends of a body duct and a prosthesis having an essentially tubular shape, the device comprising:

a mesh sleeve deformable by use of a balloon catheter and capable of radial expansion between a stable minimal-diameter configuration and a final after-expansion configuration that is also stable, the sleeve comprising a series of ~~fixation barbs~~ transfixion pins on each end adapted to ~~engage a portion of the prosthesis, a portion of the body duct, or a combination thereof surrounding the sleeve~~ transfix the portion of intubed ends of the body duct and the prosthesis surrounding the sleeve, the ~~fixation barbs~~ transfixion pins aligned at regular intervals and radially encircling the sleeve,

wherein the ~~fixation barbs~~ transfixion pins have a hemostatic profile comprising a circular base section extending to a trihedral-shaped end portion.

11. (Currently Amended) The device according to claim 10, wherein the mesh sleeve comprises an openwork steel cylinder including diamond-shaped cutouts, the ~~fixation barbs~~ transfixion pins attached to the cylinder at each end at a plurality of intersections of sides of the diamond-shaped cutouts.

12. (Currently Amended) The device according to claim 10, wherein an intermediate portion of the sleeve also comprises a plurality of intermediate [[barbs]] transfixion pins.

13. (Previously Presented) The device according to claim 10, wherein, in expansion during fixation, a ratio of a final diameter of the sleeve to an initial diameter of the sleeve is greater than 2.

14. (Currently Amended) The device according to claim 12, wherein the series of ~~fixation barbs~~ transfixion pins on each end of the sleeve are straight, and wherein the intermediate [[barbs]] transfixion pins are slightly curved and have points oriented toward one end or another end of the sleeve or randomly in any other direction.

15. (Currently Amended) The device according to claim 14, wherein the intermediate [[barbs]] transfixion pins have an end portion inclined at an angle of between 0 degrees and 10 degrees.

16. (Currently Amended) The device according to claim 12, wherein the ~~fixation barbs~~ transfixion pins of the ends of the sleeve are of a reduced height in relation to a height of the intermediate [[barbs]] transfixion pins.

17. (Currently Amended) A connecting device adapted for end-to-end anastomosis of at least two body ducts through an intermediary prosthesis having extremities intubed in end portions of the ducts, the device comprising:

a sleeve fitted at each end of the prosthesis of the intubed portions of the ducts, the sleeve comprising:

a mesh cylinder capable of radial expansion between a stable minimal-diameter configuration and a final after-expansion configuration that is also stable, and

a series of ~~fixation barbs~~ transfixion pins on each end of the cylinder and adapted to ~~engage a portion of the prosthesis, a portion of the body duct, or a combination thereof surrounding the sleeve~~ transfix a portion of said intubed ends of the body duct and the prosthesis surrounding the sleeve, the ~~fixation barbs~~ transfixion pins aligned at regular intervals and radially encircling the cylinder, wherein the ~~fixation barbs~~ transfixion pins have a hemostatic profile comprising a circular base section extending to a trihedral-shaped end portion.

18. (Currently Amended) A method for setting in place connecting devices adapted for end-to-end anastomosis of at least two body ducts through an intermediary prosthesis having extremities intubed in end portions of the ducts, comprising the steps of:

intubing a first end of the prosthesis in an extremity of a first body duct;

setting in place a first connecting device by introducing an inflatable balloon catheter into the prosthesis through an end of the prosthesis, the first connecting device comprising:

a mesh sleeve capable of radial expansion between a stable minimal-diameter configuration and a final after-expansion configuration that is also stable, and

a series of ~~fixation barbs~~ transfixion pins on each end of the sleeve and adapted to ~~engage a portion of the prosthesis, a portion of the body duct, or a combination thereof surrounding the sleeve~~ transfix the portion of said intubed ends of the body duct and the prosthesis surrounding the sleeve, the ~~fixation barbs~~ transfixion pins aligned at regular intervals and radially encircling the sleeve, wherein the ~~fixation barbs~~ transfixion pins have a hemostatic profile comprising a circular base section extending to a trihedral-shaped end portion;

intubing a second end of the prosthesis in a second body duct; and

setting in place a second connecting device by the catheter introduced into the prosthesis through an orifice in the prosthesis that is subsequently re-closed, the second connecting device similar in composition to the first connecting device.

19. (Currently Amended) The device according to claim 11, wherein the ~~barbs~~ transfixion pins are attached to the cylinder by soldering.

20. (Currently Amended) The device according to claim 11, wherein the ~~barbs~~ transfixion pins are attached to the cylinder by gluing.

21. (Currently Amended) The device according to claim 15, wherein the end portion of the intermediate [[barbs]] transfixion pins is inclined at an angle of about 5 degrees.